



Community water fluoridation

“...one of the great public health achievements of the twentieth century.”¹

What is the Public Health Issue?

Oral health is integral to general health.² Although preventable, tooth decay is a chronic disease affecting all age groups. In fact, it is the most common chronic disease of childhood.² The burden of disease is far worse for those who

have limited access to prevention and treatment services. Tooth decay, left untreated, can cause pain and tooth loss. Among children untreated decay has been associated with difficulty in eating, sleeping, learning and proper nutrition.³ Among adults untreated decay and tooth loss can also have negative effects on an individual's self esteem and employability.

In the U.S. tooth decay³ affects:

- ✓ 1 in 4 elementary school children
- ✓ 2 out of 3 adolescents
- ✓ 9 out of 10 adults

What is the impact of fluoridation?

Fluoride added to community drinking water at a concentration of 0.7 to 1.2 parts per million has repeatedly been shown to be a safe, inexpensive and extremely effective method of preventing tooth decay.² Because community water fluoridation benefits everyone in the community, regardless of age and socioeconomic status, fluoridation provides protection against tooth decay in populations with limited access to prevention services. In fact, for every dollar spent on community water fluoridation up to \$42 is saved in treatment costs for tooth decay.⁴ The National Task Force on Community Preventive Services, an independent, non-federal, multi-disciplinary Task Force appointed by the director of the Centers for Disease Control and Prevention (CDC), recently conducted a systematic review of studies of community water fluoridation. They found in communities that initiated fluoridation the decrease in childhood decay was almost 30% over 3-12 years of follow-up.³

How is Maine doing?

In 1999, almost half of Maine's third graders had experienced tooth decay, and almost 35% of Maine's 65+ population had lost all of their permanent teeth.⁴ In 2004, 84% of the population in Maine on public water systems receives fluoridated water. However, this translates into only about 38.5% of Maine's total population receiving fluoridated water due to the large proportion of Maine citizens who drink water from a private source.

Related Healthy People U.S. 2010 objectives⁵

- ✓ Increase percentage of persons on public water receiving fluoridated water to 75%.
- ✓ Reduce adults 65+ who have lost all their teeth to 20%.
- ✓ Reduce tooth decay experience in children under 9 to 42%.

Healthy Maine 2010 objective:⁶

- ✓ Reduce the proportion of children with tooth decay in their primary teeth.

What is Maine doing?

In many communities without optimally fluoridated water systems, fluoride is provided to Maine children via the School Oral Health Program (SOHP). This program provides weekly fluoride mouthrinses for students in schools that meet eligibility criteria indicating that students are at increased risk of tooth decay. Similarly, the sealant component of the SOHP also provides protection against tooth decay by sealing the pits and grooves on the chewing surfaces of molar teeth – tooth surfaces especially vulnerable to decay. The combination of sealants and fluoride has the potential to virtually eliminate tooth decay.⁸

Strategies for Maine's future:

- ✓ Encourage fluoride supplements for those at increased risk for decay and not receiving fluoridated drinking water, and support testing of private wells to determine fluoride levels.
- ✓ Continue supporting and funding the SOHP and school-based dental sealant programs.
- ✓ Educate and empower the public regarding the benefits of fluoridation.

References:

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